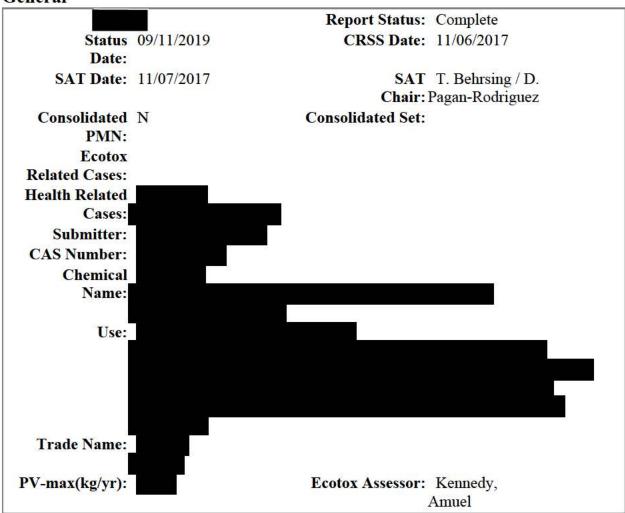
JS 3/3/22

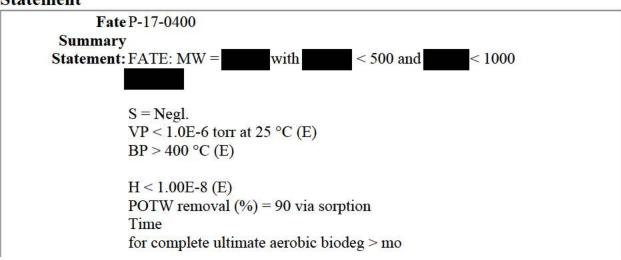
Ecotox Report for Case # P-17-0400

General



Fate Summary

Statement



Sorption to

soils/sediments = v.strong

PBT Potential: PMN P3B1; Deg Pdt P3B3

*CEB FATE: Migration to ground water = negl

Bioconcentration

factor to be put into E-FAST: Deg Pdt < 10

PMN Material:

Overall wastewater treatment removal is 90% via sorption.

Sorption to sludge is strong based on high molecular volume.

Air

Stripping (Volatilization to air) is negligible based on high molecular volume.

Removal by biodegradation in wastewater treatment is negligible based on high molecular volume.

The aerobic aquatic

biodegradation half-life is greater than months based on high molecular volume.

The anaerobic aquatic biodegradation half-life is greater than months based on the aerobic biodegradation half-life. The anaerobic biodegradation half-life is projected to be greater or equal to the aerobic biodegradation half-life.

Sorption to soil and sediment is very strong based on high molecular volume.

Migration to groundwater is negligible based on high molecular volume.

PMN Material:

High Persistence (P3) is based

on the anaerobic biodegradation half-life and high molecular volume.

Low Bioaccumulation potential (B1) is based on high molecular volume.

Incineration Product:

High Persistence (P3) is based on the

anaerobic biodegradation half-life and analogous chemicals

 $(perfluor ode gradation\ products).$

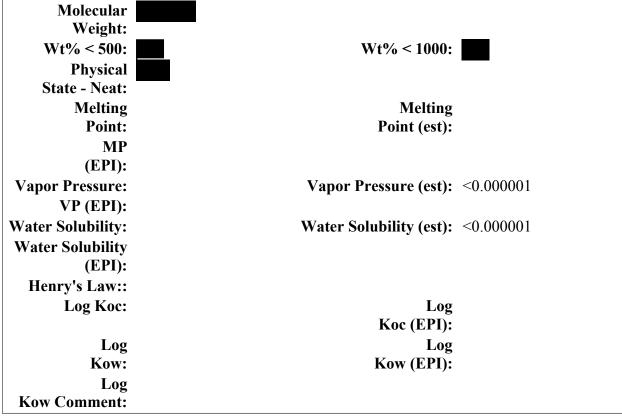
High Bioaccumulation potential

(B3) is based on analogous chemicals (perfluorodegradation products).

Bioconcentration/Bioaccumulation factor to be put into E-Fast: <

Physical Chemical

Information



SAT

Concern Level

```
Ecotox 1
Rating (1):
Ecotox
Rating Comment
(1):
Ecotox Rating
(2):
Ecotox
Rating Comment
(2):
Ecotox
Rating Comment
(2):
Ecotox Route of No releases to
Exposure: water
```

Ecotox Comments

```
Exposure N
Based Review
(Eco):
```

Ecotox	
Comments:	
Exposure Based	
Testing:	

PBT Ratings

Persistence	Bioaccumulation	Toxicity	Comments
3	1	1	PMn
3	3	2	Deg
			Pdt

Eco-Toxicity Comment:

Fate Ratings

Removal 9 in WWT/POTW (Overall): Condition	0; Rating		Rating l	Description		Comment
Condition	Values	1	2	3	4	Comment
Fish BCF:						
Log Fish BCF:						
WWT/POTW	3;	Low	Moderate	Strong	V. Strong	
Sorption:						
WWT/POTW	4;	Extensive	Moderate	Low	Negligible	
Stripping:						
Biodegradation Removal:	4;	Unknown	High	Moderate	Negligible	
Biodegradation Destruction:		Unknown	Complete	Partial	_	
Aerobic Biodeg	4;	<=	Weeks	Months	> Months	
Ult:		Days	*** 1	3.5	. 36 . 4	
Aerobic Biodeg Prim:		<= Days	Weeks	Months	> Months	
Anaerobic	4;	<= Davis	Weeks	Months	> Months	
Biodeg Ult: Anaerobic		Days <=	Weeks	Months	> Months	
Biodeg Prim:		Days				
Hydrolysis (t1/2		<=	Hours	Days	>= Months	
at pH		Minutes				
7,25C) A:		<= Minutes	Hours	Days	>= Months	

Removal 9 in WWT/POTW (Overall):	ŕ					
Condition	Rating		Rating	g Description		Comment
	Values	1	2	3	4	
Hydrolysis (t1/2 at pH 7,25C) B:						
Sorption to Soils/Sediments:	1;	V. Strong	Strong	Moderate	Low	
Migration to Ground Water:	1;	Negligible	Slow	Moderate	Rapid	PMN negl
Photolysis A, Direct:		Negligible	Slow	Moderate	Rapid	-
Photolysis B, Indirect:		Negligible	Slow	Moderate	Rapid	
Atmospheric Ox A, OH:		Negligible	Slow	Moderate	Rapid	
Atmospheric Ox B, O3:		Negligible	Slow	Moderate	Rapid	
Bio Comments: P	MN					

Material:

Overall wastewater treatment removal is 90% via sorption.

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Sorption to soil and sediment is very strong based on high molecular volume.

Migration to groundwater is negligible based on high molecular volume.

PMN Material:

High Persistence (P3) is based

on the anaerobic biodegradation half-life and high molecular volume.

Removal 90; in WWT/POTW

(Overall):

Condition Rating Rating Description Comment Values 1 2 3 4

Low Bioaccumulation potential (B1) is based on high molecular volume.

Incineration Product:

High Persistence (P3) is based on the

anaerobic biodegradation half-life and analogous chemicals

(perfluorodegradation products).

High Bioaccumulation potential

(B3) is based on analogous chemicals (perfluorodegradation products).

Bioconcentration/Bioaccumulation factor to be put into E-Fast: <

Fate Comments: PMN

Material:

Overall wastewater treatment removal is 90% via sorption.

Sorption to sludge is strong based on high molecular volume.

Air

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PMN Material:

High Persistence (P3) is based

on the anaerobic biodegradation half-life and high molecular volume.

Low Bioaccumulation potential (B1) is based on high molecular volume.

Incineration Product:

Removal 9 in WWT/POTW (Overall): Condition	0;		Raf	ing Descrip	tion	Comment
Condition	Values	1	2	3	4	Comment
a () H	naerobic b perfluorode Iigh Bioace	iodegrad egradati cumulat	on products). ion potential	e and analog	gous chemicals	
	Bioconcenti 0	ration/B	ioaccumulatio	on factor to b	oe put into E-I	Fast: <

Ecotoxicity Values

Test organism	Test Type	Test Endpoint	Predicted	Experimental Comments
Fish	96-h	LC50	*	Predictions are based on the negligible water solubility of the new chemical substance; * = no effects at saturation.
Daphnid	48-h	LC50	*	Predictions are based on the negligible water solubility of the new chemical substance; * = no effects at saturation.
Green Algae	96-h	EC50	*	Predictions are based on the negligible water solubility of the new chemical substance; * = no

Test organism	Test Type	Test Endpoint	Predicted	Experimental Comments
				effects at
				saturation.
Fish	-	Chronic Value	*	Predictions are
				based
				on the negligible
				water solubility
				of the new
				chemical
				substance; * =
				no
				effects at
			ala.	saturation.
Daphnid	-	Chronic Value	*	Predictions are
				based
				on the negligible
				water solubility of the new
				chemical
				substance; * =
				no
				effects at
				saturation.
Green	_	Chronic	*	Predictions are
Algae		Value		based
7 Hgue		v arac		on the negligible
				water solubility
				of the new
				chemical
				substance; * =
				no
				effects at
				saturation.
Ecotox Value I	Predictions are l	based on the neglig	gible water	
Comments:	solubility of the	new chemical sub	stance; solid	with an unknown MP (P);
				ingredients and mean measured
	concentrations;	hardness <150 mg/	L as CaCO3	3; and TOC <2.0
r	ng/L.			

Ecotox Factors

Factors	Most Sensitive Endpoint	Assessment Factor	CoC	Comment	
	*				

Factors	Most Assessment Sensitive Factor Endpoint	CoC	Comment
Acute Aquatic (ppb): Chronic Aquatic(ppb):	*		Because hazards are not expected up to the water solubility limit, acute and chronic concentrations of concern are not identified; * = no effects at saturation. Because hazards are not expected up to the water solubility limit, acute and chronic concentrations of concern are not identified; * = no effects at saturation.
Factors	Values	Comments	
	Nonionic Polymers		
	Polymers-nonionic-HFC		
TSCA NCC Category?	None		

Recommended

Testing:

Ecotox Factors Environmental

Comments: Hazard: Environmental hazard is relevant to whether a new chemical substance is likely to present unreasonable risk because the significance of the risk is dependent upon both the hazard (or toxicity) of the chemical substance and the extent of exposure to the substance. EPA estimated environmental hazard of this new chemical substance using predictions based on the negligible water solubility of the new chemical substance. Acute and chronic toxicity values estimated for fish, aquatic invertebrates, and algae are all no effects at saturation. These toxicity values indicate that the new chemical substance is expected to have low environmental hazard. Because hazards are not expected up to the water solubility limit, acute and chronic concentrations of concern are not identified.

Environmental Risk: Risk from acute and chronic exposures to the environment are not expected at any concentration of the new chemical substance soluble in the water (i.e., no effects at saturation).

Comments/Telephone

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Update/Upload
Time
(c)